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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR C11
PLANO, TX 75024

EXAMINER

BARNES, CRYSTAL J

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 07/02/2004

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/760,569

Applicant(s)

CHARAS, PHILIPPE

Examiner

Crystal J. Barnes

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 2, 10, 11, 18 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1, 3-9, 12-17, 19 and 21-32 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20020118.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The following is an initial Office Action upon examination of the above-identified application on the merits. Claims 1-32 are pending in this application.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1, 3-9, 12-17, 19 and 21-25, drawn to a communications system and a method for global roaming, are classified in class 709, subclass 229.
 - II. Claims 26-30, drawn to a method for anonymous payment of a subscriber for a service of a network, are classified in class 705, subclass 74.
 - III. Claims 31 and 32, drawn to a communications system, are classified in class 705, subclass 76.

The inventions are distinct, each from the other because of the following reasons:

3. Inventions I and II are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as

claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the communications system does not require the encryption and decryption of information. The subcombination has separate utility such as an anonymous payment method of a subscriber for a service of a network.

4. Inventions I and III are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the communications system does not require the access node. The subcombination has separate utility such as reading a credential verifier and adding a transaction number to the credential verifier.

5. Inventions II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as an anonymous payment method of a subscriber for a service of a network. See MPEP § 806.05(d).

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

7. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II or III, restriction for examination purposes as indicated is proper.

8. During a telephone conversation with Roger Burleigh, Reg. No. 40,542 on 24 June 2004, a provisional election was made without traverse to prosecute the invention of Group I, claims 1, 3-9, 12-17, 19 and 21-25. Affirmation of this election must be made by applicant in replying to this Office action. Claims 26-32

are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Priority

9. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Europe on 15 January 2000. It is noted, however, that applicant has not filed a certified copy of the 00850007.6 application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

10. The information disclosure statement filed 18 January 2002 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the all publications listed as other documents referred to therein have not been considered.

Drawings

11. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "400" in figure 4 has been used to designate both encrypted subscriber register and e-commerce server. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

12. Claim 17 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the

claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

The step of defining policies in claim 17 is already listed in claim 16.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1, 3-5, 7, 16 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,286,052 B1 to McCloghrie et al. in view of USPN 6,611,864 B2 to Putzolu et al., and further in view of USPN 6,714,987 B1 to Amin et al.

As per claim 1, the McCloghrie et al. reference discloses a communications system comprising at least one communications server (see column 6 lines 4-8, "policy server 216") associated with at least one communications network (see columns 5-6 lines 67-3, "network 200, LAN 202, 204, 206"); at least one communications terminal (see column 6 lines 3-10, "end station 212, station 220,

host/server 222") connected to the communications network ("network 200, LAN 202, 204, 206") to form a client-server relationship with the at least one communication server ("policy server 216"); at least one policy definition point ("policy server 216") associated with said at least one communications server ("policy server 216"), said policy definition point defining policies for services, authentication, authorization, and accounting; and at least one policy enforcement point (see column 6 lines 55-58, "local policy enforcer") associated with said at least one communications terminal (host/server 222"), wherein said policy enforcement point ("local policy enforcer") is operable to enforce on said communications terminal (host/server 222") the policies (see column 7 lines 43-51, "policy or service treatments") defined in said policy definition point ("policy server 216").

The McCloghrie et al. reference does not expressly disclose at least one policy definition point, said policy definition point defining policies for services, authentication, authorization, and accounting; and at least one policy enforcement point.

The Putzolu et al. reference discloses

(see column 3 lines 42-50, "A PEP may be a client in a client/server model ...
A policy decision point 12 correlates policy information to instruct one or more
PEPs ... A PDP may be a server in the client/server model.")

(see column 3 lines 51-61, "... a PEP sends ... messages to a PDP and the PDP
returns decision messages back to the PEP ... the PEP communications with the PDP
to obtain policy decisions or directives for network management ... transport
protocol for reliable exchange of messages between the PDP and the PEPs ...
Internet Protocol Security protocol for authentication and security of the
communications path between the PDP and the PEPs.")

The Putzolu et al. reference does not expressly disclose a policy definition
point defining policies for services, authentication, authorization, and accounting.

The Amin et al. reference discloses

(see column 28 lines 48-54, "The policy management server defines business
and service concerns ... policies for users and network devices ... distributed
policies to the network devices to enforce the policies defined ... provides policy
decisions ...")

(see column 28 lines 54-57, "The policy enforcers ... lower layer to the policy
management at appropriate network devices ... COPS protocol.")

(see column 28 lines 62-65, "The authentication server is reachable through the AAA+ server that provides the common. protocol for Authentication, Authorization, and Accounting activities.")

(see column 29 lines 34-37, "The access accounting server ... facilitates the instance for that server session at the accounting server to record the usage activities.") At the time the invention was made; it would have been obvious to a person of ordinary skill in the art to modify the policy server and policy enforcer of the network taught by the McCloghrie et al. reference with the extensible policy-based network management architecture taught by the Putzolu et al. reference to provide policy-based network management utilizing policy enforcement point (PEP) and policy decision point (PDP), and further modify the PDP taught by the Putzolu et al. reference with the service layer function components taught by the Amin et al. reference to illustrate the functional components that are distributed in network and local service layers.

One of ordinary skill in the art would have been motivated to extend network capabilities utilizing PEP and PDP including authentication, authorization, and accounting to support establishing and maintaining services through access layers.

As per claim 3, the rejection of claim 1 is incorporated and further claim 3 contains limitations recited in claim 1; therefore claim 3 is rejected under the same rationale as claim 1.

As per claim 4, the Amin et al. reference discloses said policy enforcement point (see column 26 lines 45-55, "policy enforcement") resides in said at least one communications terminal ("client 1514") as a local policy enforcement point ("performed locally").

As per claim 5, the Putzolu et al. reference discloses said at least one communications terminal (see column 3 lines 43-46, "one or more PEPs") is operable to support several simultaneously ongoing independent client-server relationships (see column 3 lines 43-47, "client/server model").

As per claim 7, the Putzolu et al. reference discloses said policy definition point (see column 3 lines 48-50, "multiple PDPs") is associated with at least one cluster ("hierarchical fashion") of said at least one communications server (see column 3 lines 46-47, "server").

As per claim 16, the rejection of claim 1 is incorporated and further claim 16 contains limitations recited in claim 1; therefore claim 16 is rejected under the same rationale as claim 1.

As per claim 17, the rejection of claim 1 is incorporated and further claim 12 contains limitations recited in claim 1; therefore claim 12 is rejected under the same rationale as claim 1.

As per claim 25, the McCloghrie et al. reference discloses said policies (see column 15 lines 64-66, "information") are entered in said policy enforcement point ("policy server 216") by a service provider ("network administrator via end station 220"), and updating of said policies (see column 17 lines 28-30, "updated information").

15. Claim 6, 9, 12, 13, 15, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,286,052 B1 to McCloghrie et al. in view of USPN 6,611,864 B2 to Putzolu et al., and further in view of USPN 6,714,987 B1 to Amin et al. as applied to claims 1, 3-5, 7, 16 and 25 above, and further in view of US Pub. No. 2002/0069278 A1 to Forsl w.

As per claim 6, the teachings of the McCloghrie et al., Putzolu et al., and Amin et al. references taken or alone or in combination do not expressly disclose further comprising at least two mutually heterogeneous communication networks,

wherein said at least one communications terminal is operable to exchange information with said at least two mutually heterogeneous communication networks.

The Forsl w reference discloses

(see [0088], "All workgroup 28 policy rules are defined in a mobile service manager 22 ... performs regular authentication checks of the mobile client 20 during service execution.")

(see [0093], "Some routers 36 in the Internet 17 and 3G networks 19 can act as foreign agents 31 for mobile clients 20 ... mobile client 20 can roam into Internet 17 subnets that do not have a foreign agent 31 functionality ... communication is authenticated using the mobile IP/AAA protocols and it is encrypted/authenticated using the IPSec protocol.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the extended network capabilities utilizing PEP and PDP including authentication, authorization, and accounting taught by the combined teachings of the McCloghrie et al., Putzolu et al., and Amin et al. references with the network-based mobile system taught by the Forsl w reference to apply mobility management.

One of ordinary skill in the art would have been motivated to further modify the extended network capabilities utilizing PEP and PDP including authentication, authorization, and accounting with the network-based mobile system to provide a secure communication within a network and to another network.

As per claim 9, the Forsl w reference discloses said policy enforcement point (see [0131], "enforces workgroup policies") includes means for enforcing a plurality of policies ("enforces workgroup policies") emanating from a plurality of networks and service providers ("OSPF 46, BGP 48 and mobility routing protocols 50").

As per claim 12, the Forsl w reference discloses said policy definition point includes a global location register (see [0099], "Visiting Location Register 64 and Home Location Register 62") indicating in which of said at least one communications network ("visiting, home") said at least one communications terminal (see[0098], "mobile client 20") resides.

As per claim 13, the Forsl w reference discloses said policy definition point further includes a subscriber database including means for storing subscriber IP addresses (see [0126], "IP address of mobile clients 20") and encryption keys

("session-negotiation keys for encrypting") for each of a plurality of subscribers ("mobile clients 20").

As per claim 15, the Forsl w reference discloses said client-server relationship is provided by a transparent packet pipe transporting and classifying packets (see [0133], "packets") according to Quality of Service ("quality of service function").

As per claim 21, the rejection of claim 13 is incorporated and further claim 21 contains limitations recited in claim 13; therefore claim 21 is rejected under the same rationale as claim 13.

As per claim 22, the rejection of claim 15 is incorporated and further claim 22 contains limitations recited in claim 15; therefore claim 22 is rejected under the same rationale as claim 15.

16. Claims 8, 19 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,286,052 B1 to McCloghrie et al. in view of USPN 6,611,864 B2 to Putzolu et al., and further in view of USPN 6,714,987 B1 to Amin et al. as applied to claims 1, 3-5, 7, 16 and 25 above, and further in view of USPN 6,587,876 B1 to Mahon et al.

As per claim 8, the teachings of the McCloghrie et al., Putzolu et al., and Amin et al. references taken or alone or in combination do not expressly disclose said policy definition point includes means for enacting policies in said at least one cluster of servers.

The Mahon et al. reference discloses

(see column 3 lines 58-62, "... explicitly associating a policy with a network resource or process, grouping policy related processes and resources ... associating groups of targets with groups of policies ...")

(see column 5 lines 60-63, "... policy 210 is explicitly associated with the target group 300 ...")

(see column 6 lines 39-41, "... policy group 400 is a group of rules ... explicitly associated with the target group 300 ...")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the extended network capabilities utilizing PEP and PDP including authentication, authorization, and accounting taught by the combined teachings of the McCloghrie et al., Putzolu et al., and Amin et al. references with the grouping policy management taught by the Mahon et al. reference.

One of ordinary skill in the art would have been motivated to further modify the extended network capabilities utilizing PEP and PDP including authentication, authorization, and accounting with the grouping policy management to provide for explicit, flexible, and centralized assignment of policies which are specified network services.

As per claim 19, the rejection of claim 8 is incorporated and further claim 19 contains limitations recited in claim 8; therefore claim 19 is rejected under the same rationale as claim 8.

As per claim 24, the rejection of claim 8 is incorporated and further claim 24 contains limitations recited in claim 8; therefore claim 24 is rejected under the same rationale as claim 8.

17. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,286,052 B1 to McCloghrie et al. in view of USPN 6,611,864 B2 to Putzolu et al., and further in view of USPN 6,714,987 B1 to Amin et al. as applied to claims 1-5, 7, 16 and 25 above, and further in view of USPN 6,510,513 B1 to Danieli.

As per claim 14, the teachings of the McCloghrie et al., Putzolu et al., and Amin et al. references taken or alone or in combination do not expressly disclose

further comprising a credential verifier providing means for anonymous payment of access for at least one of said at least one communications network.

The Danieli reference discloses

(see column 12 lines 59-64, "... trusted arbitrator checks the credentials ... credentials do not match ... invalid registration message ... credentials match ... transfer payment ...")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the extended network capabilities utilizing PEP and PDP including authentication, authorization, and accounting taught by the combined teachings of the McCloghrie et al., Putzolu et al., and Amin et al. references with the security services and policy enforcement taught by the Danieli reference.

One of ordinary skill in the art would have been motivated to further modify the extended network capabilities utilizing PEP and PDP including authentication, authorization, and accounting with the security services and policy enforcement to guarantee the authenticity and validity of clients and enforce policy restrictions.

Allowable Subject Matter

18. Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to defining and enforcing policies in communications network in general:

US Pub. No. 2001/0032262 A1 to Sundqvist et al.

USPN 6,621,793 B2 to Widegren et al.

USPN 6,230,271 B1 to Wadlow et al.

USPN 6,167,445 Gai et al.

USPN 5,341,477 Pitkin et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes whose telephone number is

703.306.5448. The examiner can normally be reached on Monday-Friday alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 703.308.3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cjb
25 June 2004


Anthony Knight
Supervisory Patent Examiner
Group 3600